



Transportation Concept Report

State Route 131

District 4



From: Google Maps

Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this Transportation Concept Report (TCR) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, the District 4 Office of System and Regional Planning makes every effort to ensure the accuracy and timeliness of the information contained in the TCR. The information in the TCR does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.


California Department of Transportation

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability

Approval Recommended:

Approval Recommended:


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STAKEHOLDER ACKNOWLEDGEMENT

District 4 is pleased to acknowledge the stakeholders and partner agencies in development of this Transportation Concept Report (TCR). Preparation of this document will be coordinated with the Transportation Authority of Marin, the County of Marin, the City of Belvedere and the Town of Tiburon.

This Final TCR will be posted on the Caltrans Corridor Mobility website at:

<http://www.dot.ca.gov/hq/tpp/corridormobility/>

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MISSION:

Provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.

VISION

A performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GOALS:

Safety and Health - *Provide a safe transportation system for workers and users, and promote health through active transportation and reduced pollution in communities.*

Stewardship and Efficiency - *Money counts. Responsibly manage California's transportation-related assets.*

Sustainability, Livability and Economy - *Make long-lasting, smart mobility decisions that improve the environment, support a vibrant economy, and build communities, not sprawl.*

System Performance - *Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers.*

Organizational Excellence - *Be a national leader in delivering quality service through excellent employee performance, public communication, and accountability.*

ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range Transportation Planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by identifying deficiencies and proposing improvements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans goals of safety and health, stewardship and efficiency, sustainability, livability and economy, system performance, and organizational excellence.

The System Planning process is primarily composed of: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the *DSMP Project List*. The DSMP is a long-range strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The Transportation Concept Report (TCR) is a multi-jurisdictional planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS, and informs the DSMP Project List. The CSMP is a more complex document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The DSMP Project List is a long-range list of conceptual, planned, and partially programmed SHS transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders including the public, partners, regional, and local agencies.

The TCR includes detailed review of all transportation modes in the corridor and if applicable, their current and projected levels of operation. Land use, community characteristics, and environmental assessments are described to show a corridor's context and where applicable, are called out as key corridor issues. The TCR also includes Caltrans suggestions for optimizing transportation modes in relation to system preservation, efficiency and expansion. The corridor concept, with consideration for various transportation issues, factors and needs, presents the long-term vision for a route during a 25-year planning horizon. Planned and programmed projects from the SHOPP, STIP, RTP, CTP and local plans are included in this document as well as project proposals to help inform the Caltrans Project Initiation Document (PID) and project development process.

Other policies that guided the development of this document include the Caltrans Strategic Management Plan (2015-2020), Assembly Bill (AB) 32, Senate Bill (SB) 375, SB 391, SB 743, SB 486, SB 32 the California Transportation Plan 2040 (CTP 2040), Complete Streets – Integrating the Transportation System (DD 64 R2), Caltrans Smart Mobility Framework (SMF), the Statewide Transit Strategic Plan (STSP), the California Freight Mobility Plan (CFMP) and the Caltrans Interregional Transportation Strategic Plan (ITSP). Information on these efforts can be found at:

Caltrans Strategic Management Plan: <http://www.dot.ca.gov/perf>
AB 32: <https://www.arb.ca.gov/cc/ab32/ab32.htm>
SB 375: <http://www.arb.ca.gov/cc/sb375/sb375.htm>
SB 391: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100SB391
SB 743: <http://www.dot.ca.gov/hq/tpp/offices/omsp/SB743.html>
SB 486: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB486
SB 32: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32
CTP 2040: <http://www.dot.ca.gov/hq/tpp/californiatransportationplan2040/2040.html>
Complete Streets: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html
SMF: <http://www.dot.ca.gov/hq/tpp/offices/ocp/smf.html>
STSP: <http://www.dot.ca.gov/hq/MassTrans/statewide-transit.html>
CFMP: <http://www.dot.ca.gov/hq/tpp/offices/ogm/cfmp.html>
ITSP: http://www.dot.ca.gov/hq/tpp/offices/omsp/system_planning/itsp.html

STAKEHOLDER PARTICIPATION

Stakeholder participation was sought in the development of this TCR. Outreach involved internal and external stakeholders. During the initial information resource gathering for the TCR, stakeholders were contacted for input related to their particular specializations and to help verify data accuracy. Once the document was vetted internally, the SR 131 TCR was sent out to local agencies of Transportation Authority of Marin (TAM), Tiburon, Belvedere, and the County of Marin. Their feedback provided important information for improving the document. The process of working closely with stakeholders adds value and relevance to the TCR.

ROUTE DESCRIPTION

State Route (SR) 131 (Corridor) is located on the Tiburon Peninsula in Marin County extending from United States (US) 101 at Post Mile (PM) 0.0 into the Town of Tiburon ending at PM 4.39. The route's setting consists of semi-rural and suburban land uses. Locally, SR 131 is called Tiburon Boulevard. Beginning at the junction with US 101, the facility is a four-lane conventional highway divided by a center median until it reaches near Trestle Glen Boulevard (PM 1.86) where it narrows to two lanes. In Downtown Tiburon, the two-lane road widens and the additional space is used to include a landscaped median or a center left-turn lane. On-street parking and frequent left and right-turn lanes are also present in this section. The route ends at a roundabout east of the Main Street intersection. Figure 1 on the following page gives an overview of the Corridor.

ROUTE DESIGNATIONS AND CHARACTERISTICS

Table 1 below summarizes the route designations and characteristics for SR 131.

Table 1. SR 131 Route Characteristics

Segment #	1
Freeway & Expressway	No
National Highway System	No
Strategic Highway Network	No
Interregional Road System	No
Federal Functional Classification	Principal Arterial
Goods Movement Route	No
Truck Designation	None
Rural/Urban/Urbanized	Rural and Urbanized
Metropolitan Planning Organization/Regional Transportation Planning Agency	Metropolitan Transportation Commission (MTC)
County Congestion Management Agency	Transportation Authority of Marin (TAM)
Local Agency	City of Belvedere, Town of Tiburon, and County of Marin
Terrain	Flat and Rolling

Figure 1. SR 131 Corridor Overview



LAND USE AND COMMUNITY CHARACTERISTICS

Tiburon and Belvedere are primarily exclusive bedroom communities and tourist destinations. They are linked by Blue and Gold and Golden Gate Ferry services to San Francisco. It is the nearest mainland point to Angel Island and a regular passenger ferry service connects to the island. Land uses vary from residential, commercial and open space. Several schools are located along or near the route, causing congestion during drop-off and pick-up periods during the day.

The 2010 U.S. Census reported Tiburon and Belvedere had a population of 8,962 and 2,068, respectively. Belvedere is located south of Tiburon at tip of the peninsula, while Tiburon is mostly surrounded by the San Francisco Bay and unincorporated Marin County, including portions on the north side of the unincorporated communities of Strawberry and Paradise Cay. The 2015 American Community Survey reported that Belvedere and Tiburon had high median incomes averaging more than \$130,000.¹

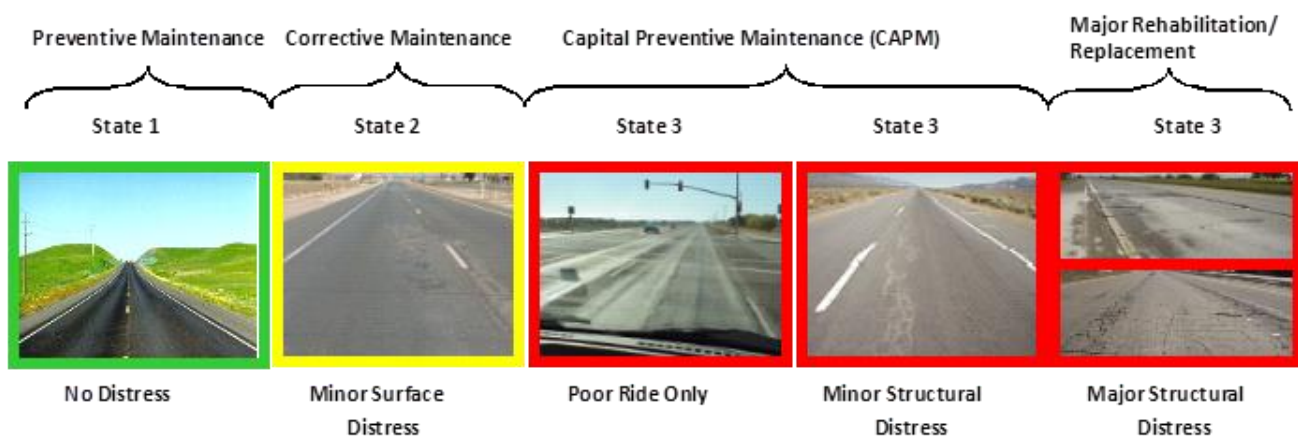
SYSTEM CHARACTERISTICS

The SR 131 Corridor spans the Tiburon Peninsula. The route operates as a spur to connect Tiburon and Belvedere with US 101 and the rest of Marin County, resulting in limited pass-through traffic. The topography is dominated by steep hillsides.

SR 131 is approximately four miles long and functionally classified as a Principal Arterial. It is a conventional highway beginning as a four-lane local road transitioning to two to three lanes east of Trestle Glen Boulevard (PM 1.86).

Per 2016 pavement conditions data, the pavement distress level on SR 131 can be described in two categories: Minor Structural Distress and Poor Ride Only. See Figure 3. As indicated in Figure 2, "Poor Ride Only" and "Minor Structural Distress" both represent "State 3" of pavement distress levels. The corresponding treatments is called Capital Preventive Maintenance (CAPM) projects. CAPM program consists of short term pavement repair projects that focus on preventive maintenance, ranging from 5 to 20 years.²

Figure 2. Pavement Distress Level and Corresponding Treatment



State 1: Good/excellent condition with few potholes or cracks ⇒ Preventive maintenance project

State 2: Fair condition with minor cracking or slab cracking ⇒ Corrective maintenance project

State 3: Poor condition with significant to extensive cracks or poor ride only ⇒ CAPM, rehabilitation or reconstruction project

¹ <https://www.census.gov/quickfacts/table/INC110215/0678666>

² <http://www.dot.ca.gov/design/manuals/hdm/chp0600.pdf>

Figure 3. 2016 Pavement Conditions Map



NON-MOTORIZED FACILITIES

The popularity of Active Transportation modes in this Corridor underscores the importance of providing multiple mobility choices. Tiburon is the endpoint for many cyclists who often board the ferry to San Francisco.

Bicycles are permitted on SR 131 for the entire length from US 101 to downtown Tiburon. It is the only through connection for cyclists between East Strawberry Drive and Blackfield/Greenwood Cove and between northern Mill Valley and northern Strawberry through the US 101 interchange. The bike facilities along the route can be divided into three sections:

- Segment 1: Bike route with shoulders available from US 101 to Trestle Glen Boulevard. (PM 0.0/1.86)
- Segment 2: Open to bicyclists with no designated bike route or bicycle facilities, or shoulders from Trestle Glen Boulevard. to Mar West Street (PM 1.86/3.88)
- Segment 3: Class II bike lanes from Mar West Street to route's end (PM 3.88/4.39)

Marin County and the Town of Tiburon's bike plans show improvements for Segment 1 as a Class II, or a Class I path between E. Strawberry Drive and Greenwood Cove Drive and this Corridor is part of the Marin County bike route network Route 10.

Caltrans District 4, in conjunction with the Town of Tiburon, submitted a request to the Federal Highway Administration (FHWA) to install bike boxes at the SR 131/Blackfield Drive/Greenwood Cove Drive intersection in October 2015. Bike boxes are identified in the National Association for City Transportation Officials' (NACTO) Urban Bikeway Design Guide for signalized intersections. The treatment is intended to improve bicyclists' visibility ahead of queued traffic during a red signal phase and help facilitate through- and left-turn movements for bicyclists. FHWA approved the request in December 2015. The pilot project was constructed in 2016 and remained in place for one year. The pilot project results³ were released in September 2017. Benefits were seen both at Blackfield Drive and Greenwood Cove Drive. An increase in bicycle usage, approximately 100 bicycle increase was observed using the new bike boxes. There was a reduction of conflicts with motorists and pedestrians in the area as well. This TCR recommends making the bike box a permanent feature.

Sidewalks are available for pedestrians from US 101 to North Knoll Road (PM 0.25). A large portion of the route does not have sidewalks as the route becomes more rural in nature. Sidewalks are also found around downtown Tiburon from Mar West Road to the end of the route. There are marked crosswalks crossing SR 131 at most major intersections along the route. However, in many cases, crosswalks are missing from certain legs of intersections.

Running in parallel to and south of SR 131, there is also a very popular Class I shared path that utilizes mostly an abandoned railway alignment from the Greenwood Beach Road parking lot to Mar West Street, where it shifts to on-street Class II bike lanes and sidewalks. Traveling eastbound along SR 131, many cyclists also use San Rafael Avenue (Belvedere) to Main Street (Tiburon) via Beach Road to access the downtown Tiburon area. Figure 4, details the existing bicycle network.

TRANSIT FACILITIES

As shown in Figure 5, bus service on SR 131 is provided by Golden Gate Transit and Marin Transit (Routes 219 and 8, respectively). The Blue and Gold Fleet offers service from Tiburon to the Ferry Building and Pier 41 in San Francisco. In this Corridor, 10.5 percent of workers commute by public transportation, which is similar to the rate across the Bay Area (10.1 percent) and somewhat higher than Marin County as a

³ <http://www.dot.ca.gov/trafficops/ctcdc/docs/Final-Report-Tiburon-Bike-Box-Evaluation-Report.pdf>

whole (8.6 percent). A relatively high percentage of these commuters (7.4 percent) use the Tiburon-San Francisco Ferry service thus avoiding US 101 congestion and San Francisco parking fees.⁴

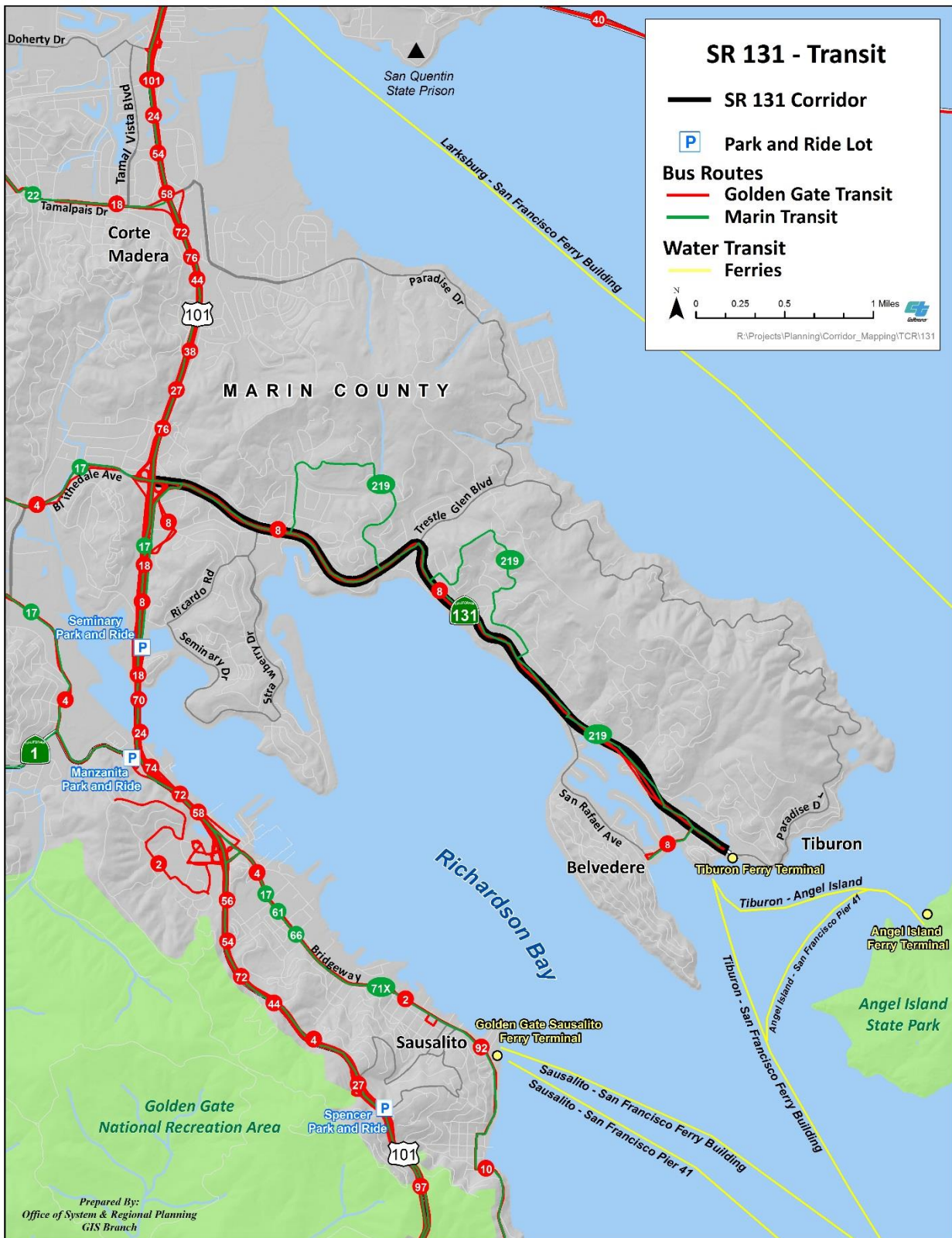
A Park-and-Ride lot has been developed at SR 131/Lyford Drive (PM 3.73) through a partnership between Caltrans and the Town of Tiburon, with each agency dedicating a portion of the right of way. There are a total of fifty parking stalls and a bike storage area at this facility.

⁴ Data source: Town of Tiburon Circulation Element Update (2016)

Figure 4. SR 131 Existing Bicycle Network



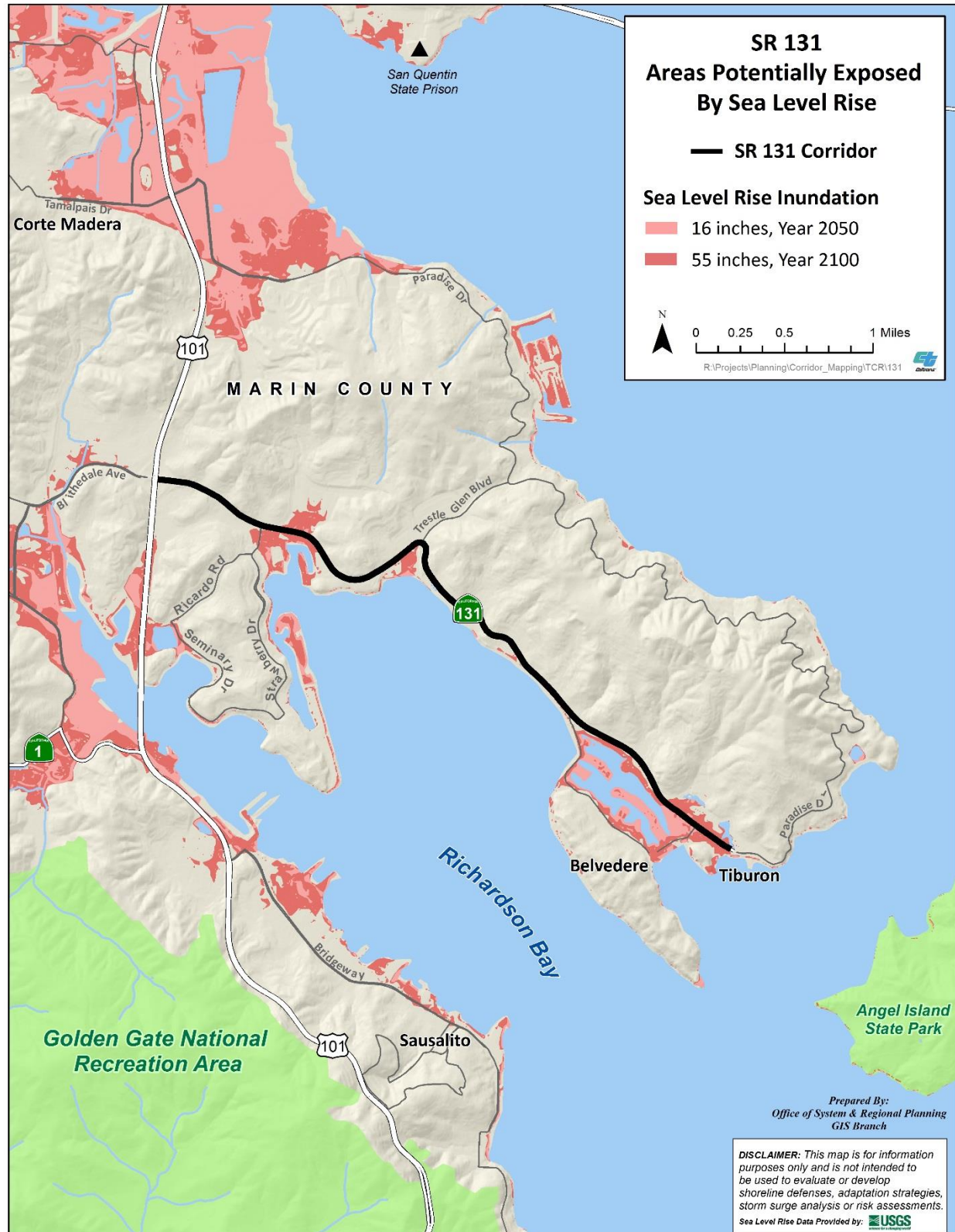
Figure 5. Existing Transit Network



SEA LEVEL RISE

SR 131 has three areas subject to inundation from projected sea level rise. The areas include (west to east): The Cove at Tiburon, "Blackie's pasture" area and downtown Tiburon at Belvedere Lagoon. In these areas, inundation would occur from 16 to 55-inch sea level rise between 2050 and 2100, as depicted in Figure 6.

Figure 6. Areas Subject to Inundation



CORRIDOR PERFORMANCE

SR 131 is a two to four-lane conventional highway connecting US 101 to the Town of Tiburon. Annual Average Daily Traffic (AADT) in 2015 was relatively low, ranging from 5,200 at Main Street in Tiburon to 45,000 AADT at the US 101 interchange. As shown in Table 3, truck volume was low in 2015 and accounted for only two and a half percent of the AADT. Heavy truck (5+ axle) volume was less than three percent of the truck AADT.

Caltrans worked with regional and local partners to develop the US 101 Ramp Metering project⁵. This project includes installation of ramp metering equipment along US 101 from the southern Marin County line to I-580. Ramp metering equipment will be installed on the northbound US 101 on-ramp at Tiburon Boulevard/SR 131. The project has been programmed into the 2016 State Highway Operation and Protection Program (SHOPP) and is under development as of writing of this TCR. See Table 4 (page 18).

Table 2. AADT (2015)⁶

PM	LOCATION	BACK PEAK			AHEAD PEAK		
		HOUR	MONTH ⁷	AADT	HOUR	MONTH	AADT
0	JCT. RTE. 101				5000	49000	46000
.666	STRAWBERRY DRIVE	3300	32000	30000	3350	33000	30500
1.86	TRESTLE GLEN DRIVE	2650	26000	24000	2550	25500	23200
3.22	SAN RAFAEL AVENUE	2100	20900	19000	1650	16500	15000
4.392	MAIN STREET	570	5800	5200			

Table 3. TRUCK AADT (2015)

PM	SEG	LOC.	VEHICLE TOTAL AADT	TRUCK TOTAL AADT	TRUCK % OF TOTAL	TRUCK AADT TOTAL BY AXLE				% OF TRUCK TOTAL BY AXLE			
						2	2	4	5+	2	3	4	5+
0	NA	JCT. RTE. 101	46,000	1164	2.53	877	218	35	34	75.31	18.71	3.04	2.93

⁵ <http://www.tam.ca.gov/wp-content/uploads/doc-reports/ramp-metering/7884.pdf>

⁶ Back annual average daily traffic (AADT) usually represents traffic South or West of the count location and is the total volume for the year divided by 365 days. Ahead annual average daily traffic (AADT) usually represents traffic North or East of the count location and is the total volume for the year divided by 365 days.

⁷ Peak Month ADT is the average daily traffic for the month of heaviest traffic flow, usually July or August. This data is obtained because on many routes, high traffic volumes which occur during a certain season of the year are more representative of traffic conditions than the annual ADT.

CORRIDOR ISSUES

Complete Streets

A Complete Street is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, trucks, and motorists, appropriate to the function and context of the facility. Complete Streets concepts apply to rural, suburban, and urban areas. Providing Complete Streets increases travel options which in turn can reduce congestion, increase system efficiency, and enable more environmentally sustainable alternatives to single driver automotive trips.

Implementing Complete Streets and other multi-modal concepts supports the California Complete Streets Act of 2008 (AB 1358), as well as the California Global Warming Solutions Act of 2006 (AB 32), Senate Bill (SB) 375 and SB 391, which outline the State's role in reducing greenhouse gas emissions. In support of Complete Streets, Caltrans Deputy Directive 64-Revision 2 (DD-64-R2) provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities on the State Highway System. Caltrans views all transportation improvements (new and retrofit) as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system. With AB 1358, DD-64-R2, and the endorsement of the National Association of City Transportation Officials (NACTO) Urban Design guidelines, both Caltrans and local agencies are working together to address common goals.

The Complete Streets needs within the SR 131 Corridor include:

- Pedestrian/cyclist accommodation in the area of the SR 131/US 101 Interchange (geometrics and high speed vehicular traffic) and additional local roads intersecting SR 131.
- Continuous pedestrian facilities along the Corridor.
- Reduction of conflicts between cyclists, pedestrians, and children on heavily used Class I shared path.
- Designated bike facility between US 101 and Trestle Glen Boulevard.

Local Initiatives

Local plans have identified similar bike and pedestrian needs within the Corridor. According to the 2016 Tiburon Bicycle and Pedestrian Plan,⁸ the Town's bicycle and pedestrian goals will be met by improving safety, improving facilities, increasing availability of bike parking, school and work programs, Active Transportation education, encourage employers to adopt bike-friendly policies for both staff and clients, and installing or improving walkways to complete pedestrian network. The Town of Tiburon Circulation Element (2016)⁹, and the City of Belvedere Circulation Element (2010)¹⁰ both have strong Complete Streets policies on the SR 131 Corridor¹¹.

From 2011-2013, Tiburon also organized a group called Community Action to Reduce Traffic (CART) consisting of local stakeholders with the objective to reduce traffic on Tiburon Boulevard. Technical assistance was provided by Marin Transit. The CART recommended several strategies that could improve traffic flow along Tiburon Boulevard during the AM and PM peak periods. As a result, the Yellow School

⁸ <http://www.townoftiburon.org/DocumentCenter/Home/View/919>

⁹ <http://www.townoftiburon.org/DocumentCenter/Home/View/841>

¹⁰ <http://www.cityofbelvedere.org/DocumentCenter/View/1776>

¹¹ Because Belvedere and Tiburon share the same arterial roadway leading to both cities, improvements made on Tiburon Boulevard affect the Belvedere community to a great degree.

Bus Challenge 2.0 program was launched in August 2015, with a greatly expanded school bus fleet including additional routes and bus stops. This effort has improved reliability and reduced congestion along SR 131.

East Blithedale Avenue /SR 131 Interchange Pedestrian and Bicycle Access Planning Study¹² - This study was prepared to identify potential pedestrian and bicycle improvements within the US 101/East Blithedale Avenue/ SR 131 interchange. It was completed in December 2016. The Transportation Authority of Marin (TAM), Caltrans, and local stakeholders were involved in the study. One of the projects identified for further study is to widen a portion of Westbound Tiburon Boulevard from North Knoll Road to Northbound US 101 onramp to accommodate bike lane and sidewalk.

Bay Trail Gap Study (2012)¹³ – This study was prepared by the Town of Tiburon in partnership with Marin County and the Association of Bay Area Governments (ABAG). The study contains considerable analysis related to bicycle and pedestrian circulation in the Corridor but specific to SR 131 is Segment 5 (Greenwood Cove Drive to East Strawberry Drive), which analyzes and provides options to address the lack of active transportation facilities in this segment. The options that have been considered include:

- Eight-foot (+/-) wide sidewalk along the south side of Tiburon Boulevard; maintain Caltrans shoulder and a single span bridge over slough.
- 12-foot (+/-) wide Class I path along the south side of Tiburon Boulevard; maintain Caltrans shoulder (path separated with barrier at highway elevation OR path below highway on bench). Single span bridge over slough.

SR 131 RELINQUISHMENT EFFORTS

Relinquishment of individual State Highway System routes or route segments can be initiated by either Caltrans or a local agency. Chapter 25 of the Project Development Procedures Manual outlines the relinquishment process. In 2012, District 4 conducted an evaluation of the State Highway routes to assess which routes to recommend for relinquishment based on their diminishing role in providing for interregional and regional mobility of people and goods. SR 131 in its entirety is listed as one of the highways recommended for relinquishment. That same year, Tiburon requested the relinquishment of SR 131 from Lyford Drive (PM 3.70) to Main Street (PM 4.35) to local ownership and operation.

Caltrans completed a Transportation System Analysis Evaluation (TSAE) that was signed in October 2013 as the initial step in this process of legislative relinquishment of SR 131¹⁴. TSAE is a report assessing the relinquishment possibility of the State Highway System (SHS) to a local agency. In 2014, AB 747 (Levine) was passed and authorizes the California Transportation Commission (CTC) to relinquish the segment of SR 131 east of Lyford Drive to the Town of Tiburon.¹⁵

Similar to other recommended relinquishments, this transfer to local control could have multiple benefits to both Tiburon and the State. It would allow the Tiburon to be responsive to community needs in their planning, improvement, and operation of the facility. It could result in cost savings for the local agency and the State by eliminating the need for encroachment permits and extensive State coordination on improvement projects. It would also eliminate cost for ongoing maintenance for the State. However, Tiburon indicated that it was not able to accept relinquishment within its jurisdiction due to cost of annual maintenance and lack of adjacent property owners' support, as documented in the 2013 TSAE. As of

¹² <https://www.tam.ca.gov/wp-content/uploads/2017/06/7b-Attachment-E-Blithedale-SR-131-Dec-2016-red.pdf>

¹³ <http://www.walkbikemarin.org/documents/Bay%20Trail%20Gap%20Study%20-%20June%202012.pdf>

¹⁴ [www.dot.ca.gov/dist4/systemplanning/docs/SR_131 TSAE_10292013.pdf](http://www.dot.ca.gov/dist4/systemplanning/docs/SR_131_TSAE_10292013.pdf)

¹⁵ http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB747

March 1st, 2017, by a unanimous vote, it was decided by the Town Council of Tiburon that the completion of the Project Scope Summary Report (PSSR) for relinquishment be put on hold.¹⁶ Nevertheless, this TCR recommends relinquishment as the ultimate Corridor Concept, as the route mainly serves local traffic and is not a through route.

CORRIDOR CONCEPT

The Facility Concept for the SR 131 Corridor is relinquishment. However, because relinquishment is largely a locally-driven process, Caltrans recommends SR 131 remain its current two to four-lane conventional highway configuration on the existing alignment while it remains under State ownership. Most of the recommended strategies, identified in Table 4 (page 17), focus on maintenance and multimodal improvements until relinquishment happens and ownership of the route is transferred to the local jurisdiction. This concept is consistent with the route functioning as a Principal Arterial mainly serving local traffic as well as policies that help advance Caltrans Strategic Mission, Vision and Goals. There is currently a proposal by the County of Marin to study the possibility of widening westbound Tiburon Boulevard from North Knoll Road to northbound US 101 on-ramp (PM 0.12-0.25). While Caltrans is open to the concept, the recommended solution from the study will need to be consistent with Caltrans goals and policies.

STATE HIGHWAY OPERATION AND PROTECTION PROGRAM (SHOPP) STRATEGIES, PLANNED AND PROGRAMMED PROJECTS

In 2015, SB 486 was signed into law by Governor Brown, requiring Caltrans to develop and implement a robust *Asset Management Plan* by the end of 2020. The SHOPP, a four-year programming document updated every two years, is the primary means available to Caltrans to execute the Asset Management Plan. The SHOPP addresses the State's *fix-it-first* approach to the State Highway System. Caltrans also develops the Ten-Year SHOPP Plan to identify goal-based needs for the management, preservation and safety improvements of the SHS and to help inform the SHOPP Program. See Appendix A for the definition of the SHOPP Program and the Ten-Year SHOPP Plan. For future SHOPP cycles, priorities will be evaluated to match funding and the goals established in the Caltrans Strategic Management Plan, such as Safety, Sustainability, Livability, Economy and Performance. As projects are selected and developed, they will also address Complete Streets, the Americans with Disabilities Act (ADA), Sea Level Rise, and issues such as fish passage. The SHOPP is limited to maintenance, safety, and rehabilitation projects on existing State highways and bridges, with generally no projects that add new traffic capacity. Table 4 shows existing planned and programmed SHOPP projects on SR 131 as well as recommendations that could be considered for future SHOPP cycles as well as other funding programs.

¹⁶ http://townoftiburon.granicus.com/MediaPlayer.php?view_id=5&clip_id=64

Table 4. Planned, Programmed and Proposed Projects

Project	Description	Location (PM)	Source
Bicycle/Pedestrian Improvement Study	East Blithedale Avenue/Tiburon Boulevard Bicycle and Pedestrian Access Improvement Study to improve bicycle/pedestrian access along SR 131. A Phase 2 of the study will look at options to increase vehicular capacity at the US 101/ East Blithedale Avenue/Tiburon Boulevard Interchange. ¹⁷	0.0	TAM memo ¹⁸ (December 2016)
Operational Improvement	US 101 Tiburon- East Blithedale Interchange improvements: Metering lights and additional lane to NB 101 on-ramp	0.0	2016 SHOPP EA 15161 ¹⁹
Bicycle Improvement	Provide Class IV Bikeway along Tiburon Boulevard from US 101/East Blithedale to Trestle Glen Boulevard. Intersection improvements to be included also.	0.0/1.86	District 4 Bike Plan
Bicycle Improvements	Conversion of shoulder to Class II bike lanes between US-101 and Trestle Glen Drive (interim project until Class IV bikeway is constructed).	0.0/1.86	2016 Tiburon Bicycle and Pedestrian Plan
Pedestrian Improvement	In Marin County on Routes 1 & 131, Pedestrian Safety Enhancement	0.0/4.4	2020 SHOPP EA 0K130
CAPM	Pavement Rehab Project from US 101 to route terminus	0.0/4.4	2017 10-Year SHOPP Plan SHOPP Tool ID 1Q230
Road Widening	Add an additional lane to westbound Tiburon Boulevard from North Knoll Road to northbound US 101 on-ramp	0.12/0.25	TAM
Intersection Improvement	Eliminate free right turn to improve pedestrian circulations and traffic operations at SR 131/Redwood Highway Frontage Road.	0.45	Caltrans/Marin County Public Works Proposal
Bicycle/Pedestrian Improvement	Class I Multi-use path on south side of Tiburon Boulevard from East Strawberry Drive to Blackfield/Greenwood Cove Drive to Blackie's Pasture parking lot	0.67/1.72	2016 Tiburon Bicycle and Pedestrian Plan/ Town of Tiburon Bay Trail Gap Study, 2012
Pedestrian Improvements	ADA curb ramp upgrade and pedestrian infrastructure at Blackfield Drive/Greenwood Drive intersection	0.86	2018 SHOPP EA 4J450
Bicycle Improvement	Permanent Bike Box at SR 131/Blackfield Drive/Greenwood Cove Drive intersection	1.72	TCR Proposal
Bicycle Improvement	Improve transition from Class I facility on Tiburon Boulevard west of Mar West Street to Class II facility east of Mar West Street. Coordinate with planned signal or roundabout at this location. Caltrans should study intersection and bicycle transition improvement.	3.95	2016 Tiburon Bicycle and Pedestrian Plan
Pedestrian Improvements	Upgrade unprotected mid-block pedestrian crossing (161 ft west of Juanita Lane)	4.33	2016 Tiburon Bicycle and Pedestrian Plan
Pedestrian Improvements	Close gaps in sidewalk network where feasible	Various locations	TCR Proposal
Pedestrian Improvements	Install Rectangular Rapid Flash Beacons (RRFB) at un-signalized crosswalks	Various locations	TCR Proposal

FY = Fiscal Year

PID = Project Initiation Document

¹⁷ <https://www.tam.ca.gov/wp-content/uploads/2017/06/7b-Attachment-E-Blithedale-SR-131-Dec-2016-red.pdf>

¹⁸ Transportation Authority of Marin (TAM) Board of Commissioners December 2016

¹⁹ <http://d4intranet/Design/temp/docs/04-151611/04-151600%20PSR-PR.pdf>

APPENDIX

APPENDIX A

GLOSSARY OF TERMS AND ACRONYMS

Acronyms

AADT- Annual Average Daily Traffic
AADTT – Annual Average Daily Truck Traffic
AB – Assembly Bill
ABAG – Association of Bay Area Governments
ADA – Americans with Disabilities Act of 1990
ADT- Average Daily Traffic
Ala CTC – Alameda County Transportation Commission
ATP – Active Transportation Program
BAAQMD – Bay Area Air Quality Management District
BCDC – Bay Conservation and Development Commission
BRT – Bus Rapid Transit
BY- Base Year
Caltrans – California Department of Transportation
CARB – California Air Resources Board
C/CAG – City/County Association of Governments of San Mateo County
CCC – California Coastal Commission
CCTA – Contra Costa Transportation Authority
CEC – California Energy Commission
CESA – California Endangered Species Act
CFAC – California Freight Advisory Committee
CFMP – California Freight Mobility Plan
CMA- Congestion Management Agencies
CMAQ – Congestion Mitigation and Air Quality
CMP – Congestion Management Plan
CSFAP – California Sustainable Freight Action Plan
CSMP – Corridor System Management Plan
CEQA- California Environmental Quality Act
CSS – Context Sensitive Solutions
CTC – California Transportation Commission
CTP – California Transportation Plan
DD – Deputy Directive
DSMP – District System Management Plan
ECA – Essential Connectivity Areas
FAST Act – Fixing America’s Surface Transportation Act
FASTLANE – Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies grant program
FHWA – Federal Highway Administration
FSR – Feasibility Study Report
FSTIP- Federal Statewide Transportation Improvement Program
FTA – Federal Transit Administration
FTIP – Federal Transportation Improvement Program
GHG- Greenhouse Gas
GIS – Geographic Information System
HCP- Habitat Conservation Plan

HOT-High Occupancy Toll lane
 HOV-High Occupancy Vehicle lane
 HY- Horizon Year
 ICM – Integrated Corridor Mobility
 IGR-Intergovernmental Review
 ITIP – Interregional Transportation Improvement Program
 ITS – Intelligent Transportation System
 ITSP – Interregional Transportation Strategic Plan
 KPRA – Kingpin-to-Rear-Axle
 LOS – Level of Service
 MAP-21 – Moving Ahead for Progress in the 21st Century
 MPO- Metropolitan Planning Organizations
 MTC – Metropolitan Transportation Commission
 NOA – Naturally Occurring Asbestos
 NCCP- Natural Community Conservation Plan
 NEPA- National Environmental Policy Act
 NHS – National Highway System
 NHFN – National Highway Freight Network
 NMFN – National Multimodal Freight Network
 NVTa – Napa Valley Transportation Authority
 PAED – Project Approval/Environmental Document
 PBA – Plan Bay Area
 PCA – Priority Conservation Area
 PDA – Priority Development Area
 PFN – Primary Freight Network
 PID-Project Initiation Document
 PIR – Project Initiation Report
 PM – Post Mile
 PM 2.5 – Particulate Matter 2.5 micrometers or less in diameter
 PM 10 – Particulate Matter 10 micrometers or less in diameter
 PSR- Project Study Report
 PR – Project Review
 PTSF – Percent Time Spent Following
 RHNA- Regional Housing Needs Allocation
 RTP- Regional Transportation Plan
 RTIP – Regional Transportation Improvement Program
 RTPA- Regional Transportation Planning Agencies
 SACOG – Sacramento Area Council of Governments
 SAFETEA-LU - Safe, Accountable, Flexible and Efficient Transportation Equity Act, a Legacy for Users
 SB – Senate Bill
 SCS- Sustainable Community Strategies
 SCTA – Sonoma County Transportation Authority
 SFCTA – San Francisco County Transportation Authority
 SHOPP- State Highway Operation Protection Program
 SHS – State Highway System
 SJCOG – San Joaquin Council of Governments
 SMF – Smart Mobility Framework
 SR – State Route
 STA – Solano Transportation Authority
 STIP – State Transportation Improvement Program

STP – Surface Transportation Program
STRAHNET – Strategic Highway Network
TAM – Transportation Authority of Marin
TCIF – Trade Corridors Improvement Fund
TCRP – Transit Cooperative Research Program
TEA-21 Transportation Equity Act for the 21st Century
TCR – Transportation Concept Report
TIGER – Transportation Investment Generating Economic Recovery
TDM – Transportation Demand Management
TMP – Transportation Management Plan
TMS – Transportation Management System
TSN- Transportation System Network
VMT – Vehicle Miles Traveled
VTA – Santa Clara Valley Transportation Authority
VPH – Vehicles per Hour

Definitions

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Base Year – The year that the most current data is available to the Districts

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bikeway Class IV (Separated Bikeway/Cycle Track) – Provides for exclusive use for bicycles by separating bikeway from motor vehicle traffic.

Bottlenecks – A bottleneck is a location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20 to 25-year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger Rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

Conceptual Project– A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a fiscally constrained plan and is not currently programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Concept – Describe the Facility and strategies that may be needed within 20-25 years. This can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility, Non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, Transportation Demand Management and Incident Management.

Facility Type – The facility type describes the State Highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Freight Generator – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

Horizon Year – The year that the future (20-25 years) data is based on.

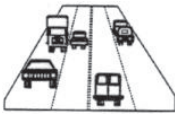
Intermodal Freight Facility – Intermodal transport requires more than one mode of transportation. An intermodal freight facility is a location where different transportation modes and networks connect and freight is transferred (or “transloaded”) from one mode, such as rail, to another, such as truck.

ITS – Intelligent Transportation System improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

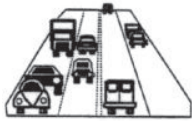
LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:



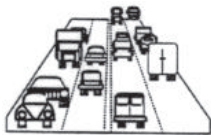
At **LOS A**, motorists experience high operating speeds on Class I highways and little difficulty in passing. Platoons of three or more vehicles are rare. On Class II highways, speed would be controlled primarily by roadway conditions. A small amount of platooning would be expected. On Class III highways, drivers should be able to maintain operating speeds close or equal to the free-flow speed (FFS) of the facility.



At **LOS B**, passing demand and passing capacity are balanced. On both Class I and Class II highways, the degree of platooning becomes noticeable. Some speed reductions are present on Class I highways. On Class III highways, it becomes difficult to maintain FFS operation, but the speed reduction is still relatively small.



At **LOS C**, most vehicles are travelling in platoons. Speeds are noticeably curtailed on all three classes of highway.



At **LOS D**, platooning increases significantly. Passing demand is high on both Class I and II facilities, but passing capacity approaches zero. A high percentage vehicles are now traveling in platoons, and Percent Time Spent Following (PTSF) is quite noticeable. On Class III highways, the fall-off from FFS is now significant.



At **LOS E**, demand is approaching capacity. Passing on Class I and Class II highways is virtually impossible, and PTSF is more than 80%. Speeds are seriously curtailed. On Class III highways, speed is less than two-thirds the FFS. The lower limit of this LOS represents capacity.



At **LOS F**, exists whenever demand flow in one or both directions exceeds the capacity of the segment. Operating conditions are unstable, and heavy congestion exists on all classes of two-lane highway.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

System Operations and Management Concept – Describe the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Aux. lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV land to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Planned Project– A planned improvement or action is a project in a fiscally constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the [general direction](#) the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the remainder of the route within the county will remain unchanged.

Programmed Project– A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

Route Designation –A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System,

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau

Segment – A portion of a facility between two points.

TDM – Transportation Demand Management programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

TMS – Transportation Management System is the business processes and associated tools, field elements and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

Urban – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

VMT – Is the total number of miles traveled by motor vehicles on a road or highway segments.

APPENDIX B

FEDERAL, STATE, AND REGIONAL PLANS AND POLICIES

FEDERAL

[Fixing America's Surface Transportation Act \(FAST Act\) December, 2015](#)

FAST Act will provide \$305 Billion in funding for surface transportation programs and was signed into law in December 2015. The federal spending bill replaces MAP-21, Moving Ahead for Progress in the 21st Century signed into law in 2012. FAST Act provides funding for highway, transit, and railroad networks, most of which will be distributed to state departments of transportation and local transit agencies.

[Federal Transportation Improvement Program \(FTIP\)](#)

All federally funded projects, and regionally significant projects (regardless of funding), must be listed in the FTIP per federal law. A project is not eligible to be programmed in the FTIP until it is programmed in the *State Transportation Improvement Program* (STIP) or in the *State Highway Operations and Protection Program* (SHOPP). Other types of funding (Federal Demonstration, Congestion Mitigation and Air Quality (CMAQ), Transportation Enhancement Activities (TEA), and Surface Transportation Program (STP) must be officially approved before the projects can be included in the FTIP.

STATE

[California Transportation Plan \(CTP\) 2040](#)

The CTP is a long-range policy framework to meet California's future multi-modal mobility needs and reduce greenhouse gas and particulate matter (PM) emissions. The CTP defines goals, performance-based policies, and strategies to achieve a collective vision for California's future Statewide, integrated, multimodal transportation system. A new updated plan was recently finalized in June 2016. It focuses on meeting new trends and challenges, such as economic and job growth, climate change, freight movement, and public health. In addition, performance measures and targets were developed to assess performance of the transportation system to meet the requirements of MAP-21. Caltrans has initiated CTP 2050, a strategic update to CTP 2040.

[California Interregional Blueprint \(CIB\)](#)

Responding to Senate Bill 391 of 2009, CIB informs and enhances the State's transportation planning process. Similar to requirements for regional transportation plans under Senate Bill 375, SB 391 requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill 32. In response to these statutes, Caltrans is preparing a state-level transportation blueprint to inform CTP 2040 and articulate the State's vision for an integrated, multi-modal interregional transportation system that integrates the Regional Blueprint Program (see the Regional appendix section) and complements regional transportation plans. The CIB will integrate the State's long-range multi-modal plans and Caltrans-sponsored programs with the latest technology and tools to enhance our ability to plan for and manage a transportation system that will expand mode choices and meet future increases in transportation needs and still meet the GHG-reduction targets or SB 375.

[State Transportation Improvement Program \(STIP\)](#)

The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. Caltrans and the regional planning agencies prepare transportation improvement plans for submittal. Local agencies work through their Regional Transportation Planning Agency (RTPA), County

Transportation Commission, or Metropolitan Planning Organization (MPO), as appropriate, to nominate projects for inclusion in the STIP.

Interregional Transportation Improvement Program (ITIP)

The Interregional Transportation Improvement Program (ITIP) is a state-funding program for the Interregional Improvement Program (IIP) and is a sub-element of the State Transportation Improvement Program. The IIP is a state funding category created in SB 45 for intercity rail, interregional road or rail expansion projects outside urban areas, or projects of statewide significance, which include projects to improve State highways, the intercity passenger rail system, and the interregional movement of people, vehicles, and goods. Caltrans nominates and the California Transportation Commission approves a listing of interregional highway and rail projects for 25% of the funds to be programmed in the STIP (the other 75% are Regional Improvement Program funds). Only projects planned on State highways are to be included in this program.

Interregional Transportation Strategic Plan (ITSP) 2015

The ITSP is a California Department of Transportation (Caltrans) document that provides guidance for the identification and prioritization of interregional State highway projects. The ITSP promotes the State of California's role of improving mobility while providing opportunity for efficient goods movement. It also provides summary information regarding other interregional transportation modes—in particular, intercity passenger rail. The ITSP highlights critical planning considerations such as system planning, complete streets, and climate change.

District System Management Plan (DSMP)

The DSMP provides a vehicle for the development of multi-modal and multi-jurisdictional transportation strategies. These strategies must be based on an analysis that is developed in partnership with regional and local agencies. The DSMP is the State's counterpart to the Regional Transportation Plan (RTP) for the region. The former Transportation System Development Program (TSDP) is now incorporated within this management plan as a Project List.

State Highway Operation and Protection Program (SHOPP)

Caltrans prepares the SHOPP for the expenditure of transportation funds for major capital improvements necessary to preserve and protect the State Highway System. The SHOPP is a four-year funding program updated every two years, focusing available resources on the most critical categories of projects: safety mandates, bridge, and pavement preservation. The *Ten-Year SHOPP* anticipates long-term projected expansion and maintenance needs.

Ten-Year SHOPP

The Ten-Year SHOPP is a State plan for the rehabilitation and reconstruction of State highways and bridges. The purpose of the plan is to identify needs for the upcoming ten years. The plan is updated every two years. It includes specific milestones, quantifiable accomplishments and strategies to control cost and improve the efficiency of the program. The Ten-Year SHOPP differs from programmed two-year SHOPP, as it has no funding constraints assigned, just Program targets.

California Strategic Growth Plan

The Governor and Legislature have initiated the first phase of a comprehensive Strategic Growth Plan to address California's critical infrastructure needs over the next twenty years. California faces over \$500 billion in infrastructure needs to meet the demands of a population expected to increase by 23 percent over the next two decades. In November 2006, the voters approved the first installment of that twenty-year vision to rebuild California by authorizing a series of General Obligation bonds totaling \$42.7 billion.

Smart Mobility Framework

Caltrans released *Smart Mobility 2010: A Call to Action for the New Decade* in February 2010. SMF was prepared in partnership with US Environmental Protection Agency, the Governor's Office of Planning and Research, and the California Department of Housing and Community Development to address both long-range challenges and short-term pragmatic actions to implement multi-modal and sustainable transportation strategies in California.

Smart Mobility 2010 provides new tools and techniques to improve planning. It links land use "place types," considers growth scenarios and how growth will best gain the benefits of smart mobility. The SMF emphasizes travel choices, healthy, livable communities, reliable travel times for people and freight, and safety for all users. This vision supports the goals of social equity, climate change intervention, and energy security as well as a robust and sustainable economy.

Caltrans Deputy Directive DD-64-R2 Complete Streets - Integrating the Transportation System, 2008 & 2014

DD-64-R2 expresses Caltrans commitment to providing for the needs of all travelers including motorists, pedestrians, bicyclists and persons with disabilities in all programming, planning, maintenance, construction, operations, and project development activities and products.

State Assembly Bill 32 (AB 32) Global Warming Solutions Act, September 2006

This bill requires the State's greenhouse gas emissions to be reduced to 1990 levels by the Year 2020. Caltrans strategy to reduce global warming emissions has two elements. The first is to make transportation systems more efficient through operational improvements. The second is to integrate emission reduction measures into the planning, development, operations and maintenance of transportation elements.

Senate Bill 1 (SB 1) Road and Repair Accountability Act, 2017

SB 1 provides the first significant, stable, and on-going increase in State-directed transportation funding in more than two decades. This legislative package invests \$54 billion over the next decade to fix roads, freeways and bridges in communities across California and puts more dollars toward transit and safety. These funds will be split equally between state and local investments. SB 1 presents a balance of new resources and reasonable reforms to ensure efficiency, accountability, and performance from each dollar invested to improve California's transportation system.

Senate Bill 45 (SB 45), 1997

SB 45 establishes guidelines for the California Transportation Commission to administer the allocation of funds appropriated from the Public Transportation Account for capital transportation projects designed to improve transportation facilities.

Senate Bill 375 (SB 375) Addressing Greenhouse Gas Emissions from the Transportation Sector, 2008

SB 375 provides a means for achieving AB 32 goals from cars and light trucks. The transportation sector contributes over forty percent of the GHGs throughout the State. Automobiles and light trucks alone contribute almost thirty percent. SB-375 requires the California Air Resources Board (ARB) to develop regional greenhouse gas (GHG) emission reduction targets for cars and light trucks for each of the 18 Metropolitan Planning Organizations (MPOs). Through their planning processes, each of the MPOs is required to develop plans to meet their regional GHG reduction target. This would be accomplished through either the financially constrained "sustainable communities strategy" as part of their regional transportation plan (RTP) or an unconstrained alternative planning strategy. SB-375 also provides

streamlining of California Environmental Quality Act (CEQA) requirements for specific residential and mixed-use developments.

[Senate Bill 391 \(SB 391\)](#) *California Transportation Plan updates, 2009*

This bill requires the department to update the California Transportation Plan by December 31, 2015, and every 5 years thereafter. The bill requires the plan to address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050. The bill requires the plan to identify the statewide integrated multimodal transportation system needed to achieve these results.

[Senate Bill 743 \(SB 743\)](#) *California Environmental Quality Act (CEQA) updates, 2013*

This bill requires the Office of Planning and Research to update guidelines for analyzing transportation project impacts as they relate to CEQA legislation. Currently, guidelines are considered interim as the SB 743 court ruling is not final as of May 2018. Vehicle Miles Traveled (VMT) now provides an alternative to LOS for evaluating transportation impacts. Particularly within areas served by transit, those alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.”

[Caltrans - Climate Action Plan](#)

Greenhouse gas (GHG) emissions and the related subject of global climate change are emerging as critical issues for the transportation community. Caltrans recognizes the significance of cleaner, more energy efficient transportation. On June 1, 2005 the State established climate change emissions reduction targets for California that lead to development of the Climate Action Program. This program highlights reducing congestion and improving efficiency of transportation systems through smart land use, operational improvements, and Intelligent Transportation Systems (objectives of the State’s Strategic Growth Plan). The Climate Action Plan approach also includes institutionalizing energy efficiency and GHG emission reduction measures and technology into planning, project development, operations, and maintenance of transportation facilities, fleets, buildings, and equipment. The Draft report is expected by the end of June 2018.

[Comprehensive Corridor Plans \(CCP\)](#)

SB 1 established multiple funding programs, including the Solutions for Congested Corridors Program (SCCP). This program provides \$250 million annually on a competitive basis to Caltrans and regional agencies for projects designed to achieve a balanced set of transportation, environmental, and community access improvements within highly-congested travel corridors throughout the State. The legislation stipulates projects eligible for SCCP funding must be included in a Comprehensive Corridor Plan designed to reduce congestion in highly-traveled corridors by providing more transportation choices for residents, commuters and visitors to the area while preserving the character of the local community and creating opportunities for neighborhood enhancements. CTC is developing CCP guidelines to be adopted in late 2018.

[Corridor System Management Plans \(CSMP\)](#)

In 2007, the California Transportation Commission adopted a resolution stating “...the Commission expects Caltrans and regional agencies to preserve the mobility gains of urban corridor capacity improvements over time that will be described in Corridor System Management Plans (CSMPs).” A CSMP is a transportation planning document that will study the facility based on comprehensive performance assessments and evaluations. The strategies are phased, and include both operational and more traditional long-range capital expansion strategies. They take into account transit usage, projections, and interactions with arterial network, and connection to State Highways. Each CSMP

presents an analysis of existing and future traffic conditions and proposes traffic management strategies and capital improvements to maintain and enhance mobility within each corridor.

[California Freight Mobility Plan, 2014](#)

The California State Transportation Agency (CalSTA) and Caltrans developed a state freight plan, titled the California Freight Mobility Plan (CFMP). Per Assembly Bill 14 (Lowenthal, 2013) the CFMP is a comprehensive plan that governs the immediate and long-range planning activities and capital investments of the state with respect to the movement of freight. The CFMP will also comply with the relevant provisions of the federal Moving Ahead for Progress in the 21st Century Act (MAP-21) which encourages each state to develop a freight plan. The CFMP is a modal plan contributing to the Department's ongoing [California Interregional Blueprint \(CIB\)](#) initiative. It will use recent freight industry information developed by seaports, railroads, airports, and others, as well as benefit from important regional freight mobility planning programs by partner agencies.

[California State Rail Plan \(CSRP\), 2018](#)

The Rail Plan establishes a long-term vision for prioritizing state investment in an efficient, effective passenger and freight rail system, which supports the goals and policies of the California Transportation Plan 2040. The Rail Plan identifies service goals, capital costs, and a phased strategy for achieving the Vision. This ambitious plan identifies a coordinated, statewide passenger rail network that will get Californians where they want to go, when they want to go, and enhance the movement of goods by rail to support California's industries and the economy. As of May 2018, the CSRP is released in Draft form. Final release date has not been determined.

REGIONAL

[Regional Transportation Plan \(RTP\) and Plan Bay Area](#)

The Metropolitan Transportation Commission (MTC) functions as both the State-designated Regional Transportation Planning Agency (RTPA) and federally-designated Metropolitan Planning Organization (MPO). MTC is responsible for the development and update of the RTP, a financially constrained long range transportation plan for the region. Pursuant to SB 375, along with an updated RTP, each region in California must develop a Sustainable Communities Strategy (SCS) that promotes walk and bike-friendly mixed-use commercial and residential development close to mass transit, jobs, schools, shopping, parks, recreation, and other amenities. MTC's Plan Bay Area (PBA), first adopted in July 2013 and then updated in July 2017 as *PBA 2040*, serves as the San Francisco Bay Area's RTP and SCS. Plan Bay Area discusses how the Bay Area will grow over the next two decades and identifies transportation and land use strategies to enable a more sustainable, equitable and economically vibrant future. MTC is currently working on an update to PBA 2040, to be adopted in 2021.

[Regional Transportation Improvement Program \(RTIP\)](#)

The Regional Transportation Improvement Program is a sub-element of the State Transportation Improvement Program (STIP). The Metropolitan Transportation Commission is responsible for developing regional project priorities for the RTIP for the nine counties of the Bay Area. The biennial RTIP is then submitted to the California Transportation Commission for inclusion in the STIP.

[Regional Blueprint Planning Program](#)

The Regional Blueprint Planning Program supports the smart growth element of the Strategic Growth Plan by promoting smart land use choices at the regional and local levels. The Regional Blueprint Planning Program was a grant program that supported Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) to conduct comprehensive scenario planning.

Using consensus-building and a broad-based visioning approach it's goal was to envision future land use patterns and their potential impacts on a region's transportation system, housing supply, jobs/housing balance, resource management and other protections. The Blueprint planning effort in the San Francisco Bay Area is the Focus our Vision (FOCUS) program, which is led by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) with support from the Bay Area Air Quality Management District (BAAQMD) the Bay Conservation and Development Commission (BCDC), and Caltrans. These agencies and local governments participated in the Regional Blueprint Planning Program since the program's inception in 2005, receiving grants for all four years, and now carry on regional blueprint goals through *the FOCUS program*.

[Freeway Performance Initiative \(FPI\)](#)

This is the Metropolitan Transportation Commission's ongoing effort to improve the operations, safety, and management of the Bay Area's freeway network by deploying system management strategies, completing the HOV lane system, addressing regional freight issues, and closing key freeway infrastructure gaps.

APPENDIX C RESOURCES

Caltrans Traffic Census

<http://www.dot.ca.gov/trafficops/census/>

Plan Bay Area 2040

<https://www.planbayarea.org/plan>

Tiburon Bicycle and Pedestrian Plan (2016)

<http://www.townoftiburon.org/DocumentCenter/View/784/2016-BICYCLE-AND-PEDESTRIAN-MASTER-PLAN>

Safe Routes to Schools Online Guide

http://guide.saferoutesinfo.org/encouragement/walking_school_bus_or_bicycle_train.cfm

Town of Tiburon Bay Trail Gap Study Appendix 1 (2012)

<http://www.walkbikemarin.org/documents/Bay%20Trail%20Study%20-%20Appendix%201.pdf>

Town of Tiburon Bay Trail Gap Study Appendix 2 (2013)

http://www.walkbikemarin.org/documents/TiburonBayTrail_App2_FINAL.pdf